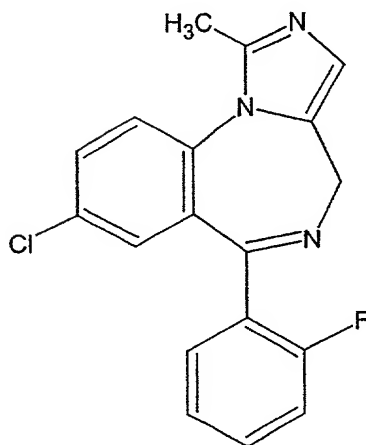
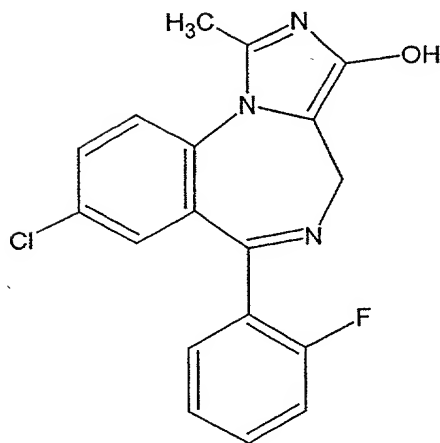


CYP3A4



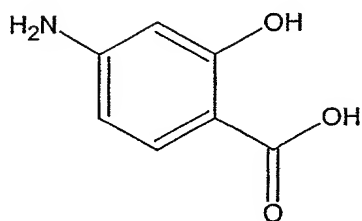
MDZ (Midazolam)



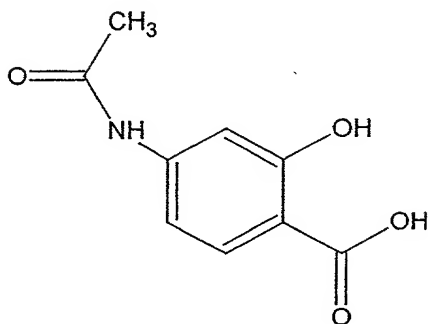
1-OH-MDZ (1-Hydroxymidazolam)

Fig. 1

NAT1



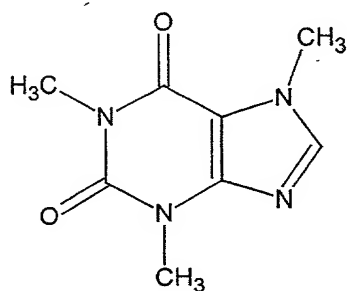
p-ASA (p-aminosalicylic acid)



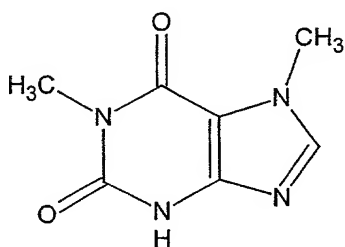
Acetyl-pASA (acetyl-p-aminosalicylic acid)

Fig. 2

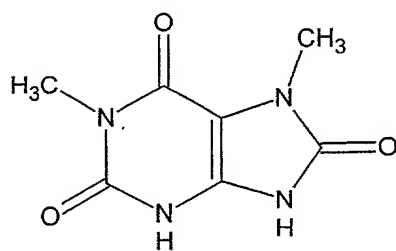
CYP1A2



Caffeine (1,3,7-trimethylxanthine)



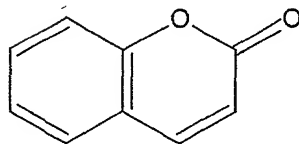
1,7-DMX (1,7-dimethylxanthine)



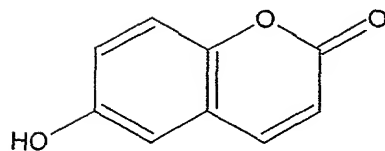
1,7-DMU (1,7-dimethyluracil)

Fig. 3

CYP2A6



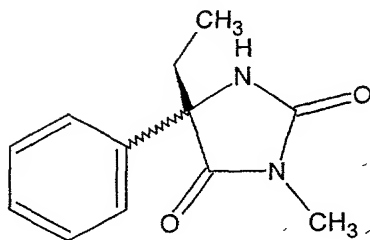
Coumarin



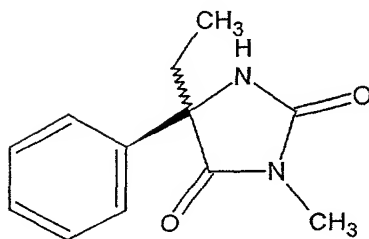
7-Hydroxycoumarin

Fig. 4

CYP2C19



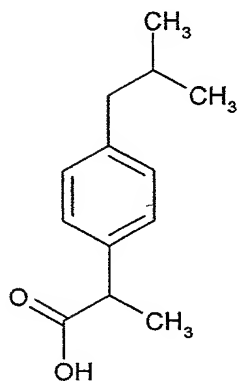
R-(-)-Mephénytoin



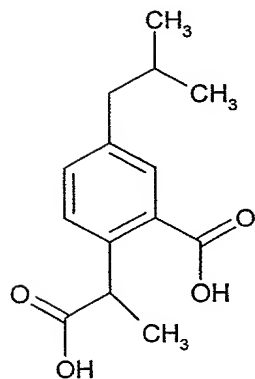
S-(+)-Mephénytoin

Fig. 5

CYP2C9



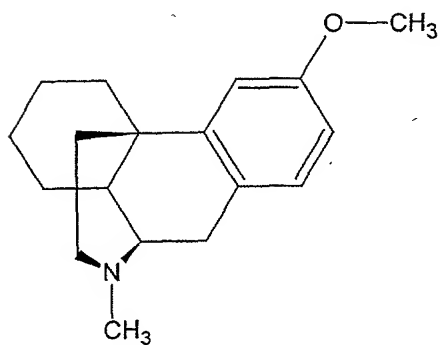
(s) -Ibuprofen



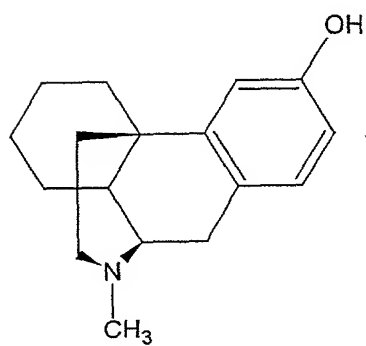
2-carboxvibuprofen

Fig. 6

CYP2D6



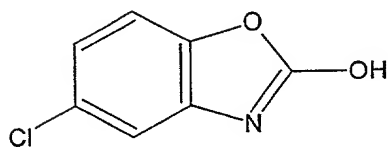
Dextromethorphan



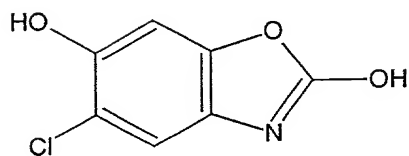
Dextroorphan

Fig. 7

CYP2E1



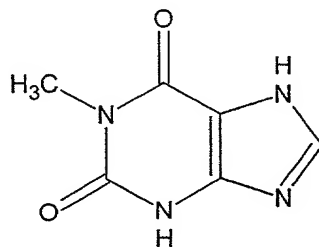
Clorzoxazone



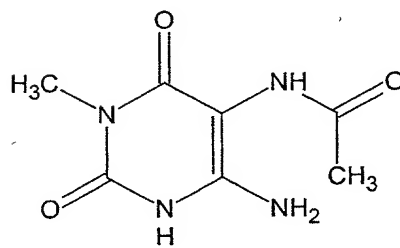
6-Hydroxychlorzoxazone

Fig. 8

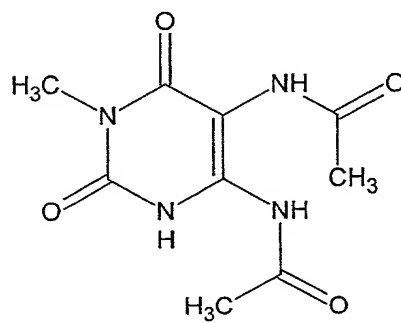
NAT2



1X (1-methylxanthine)



AAMU (5-acetamido-6-amino-methyluracil)



AFMU (5-acetamido-6-formylamino-methyluracil)

Fig. 9

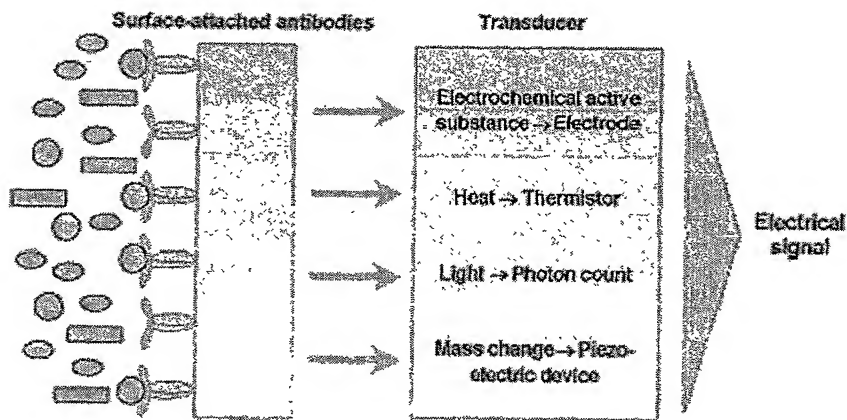


Fig. 10

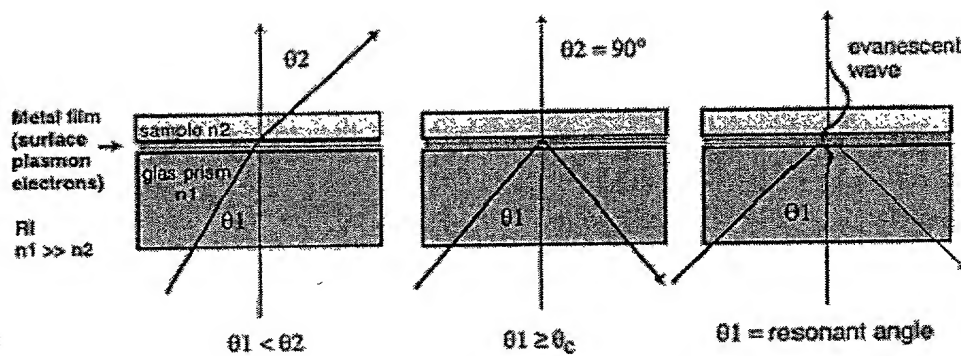


Fig. 11

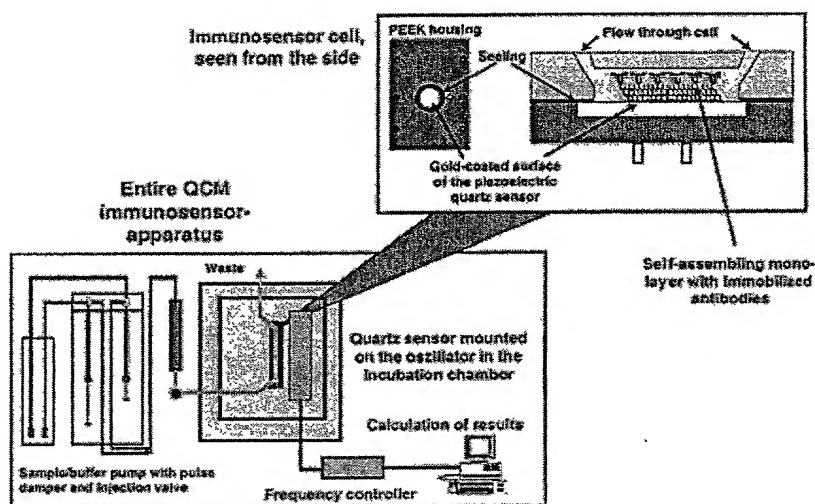
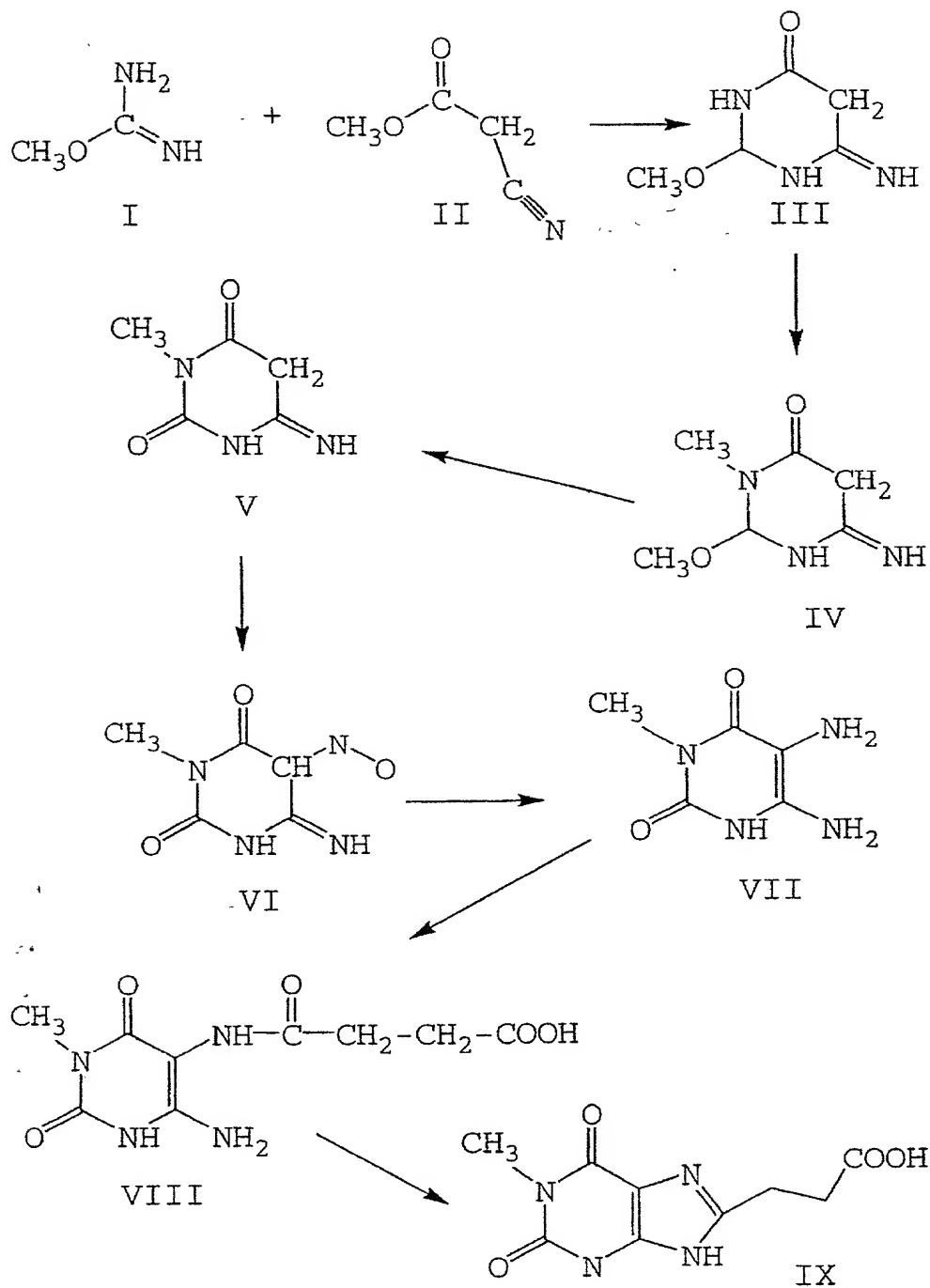


Fig. 12

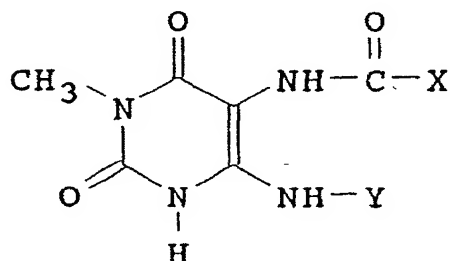


AAMU-hemisuccinic acid

1 methyl xanthine-8-propionic acid

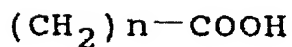
Fig. 13

Derivatives of AAMU (5-acetamino-6-amino-3-methyluracil) or
 AFMU (5-acetamino-6-formylamino-3-methyluracil)

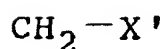
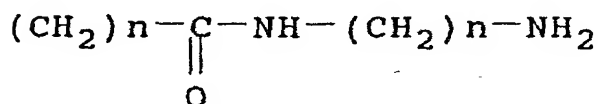
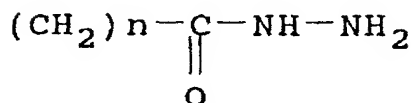


Where Y is
 H or $\begin{array}{c} \text{C}-\text{H} \\ || \\ \text{O} \end{array}$

X



where n = 2, 3 or 4



where X' is I, Br, or Cl

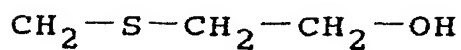
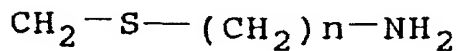
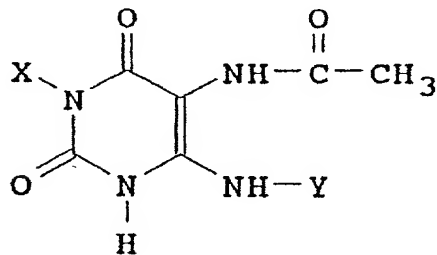
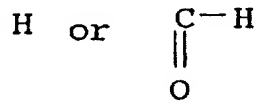


Fig. 14

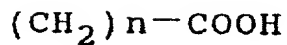
Derivatives of AAMU (5-acetamino-6-amino-3-methyluracil) or
AFMU (5-acetamino-6-formylamino-3-methyluracil)



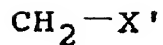
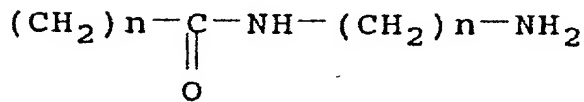
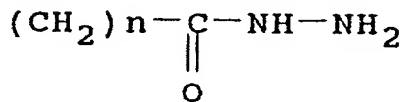
Where Y is



X



where n = 2, 3 or 4



where X' is I, Br, or Cl

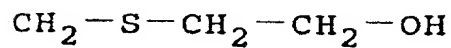
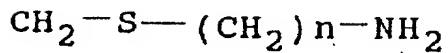
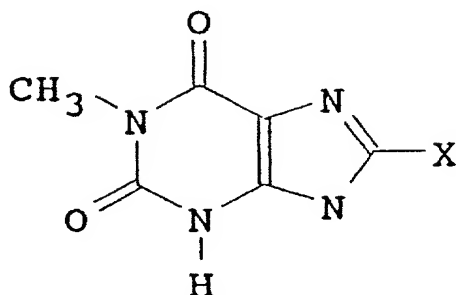
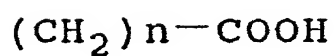


Fig. 15

Derivatives of 1X (methylxanthine)



X



where n = 2, 3 or 4

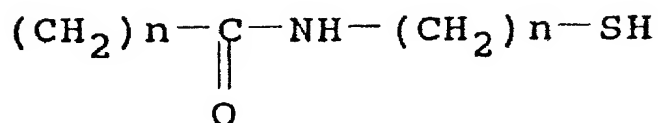
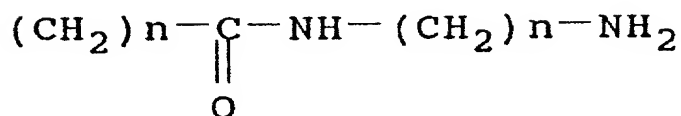
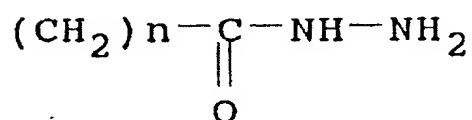
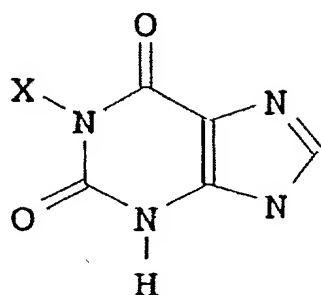
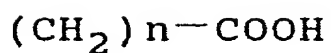


Fig. 16

Derivatives of 1X (methylxanthine)



X



where n = 2, 3 or 4

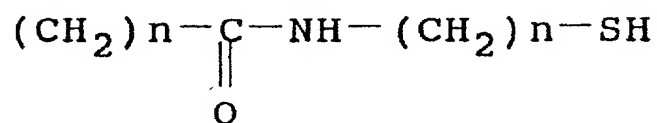
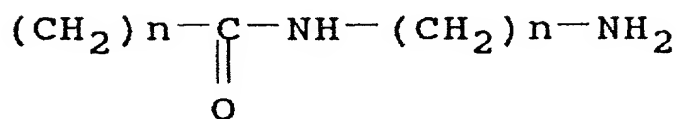
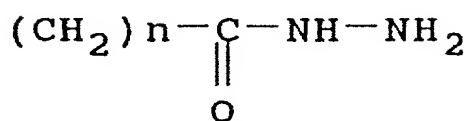


Fig. 17

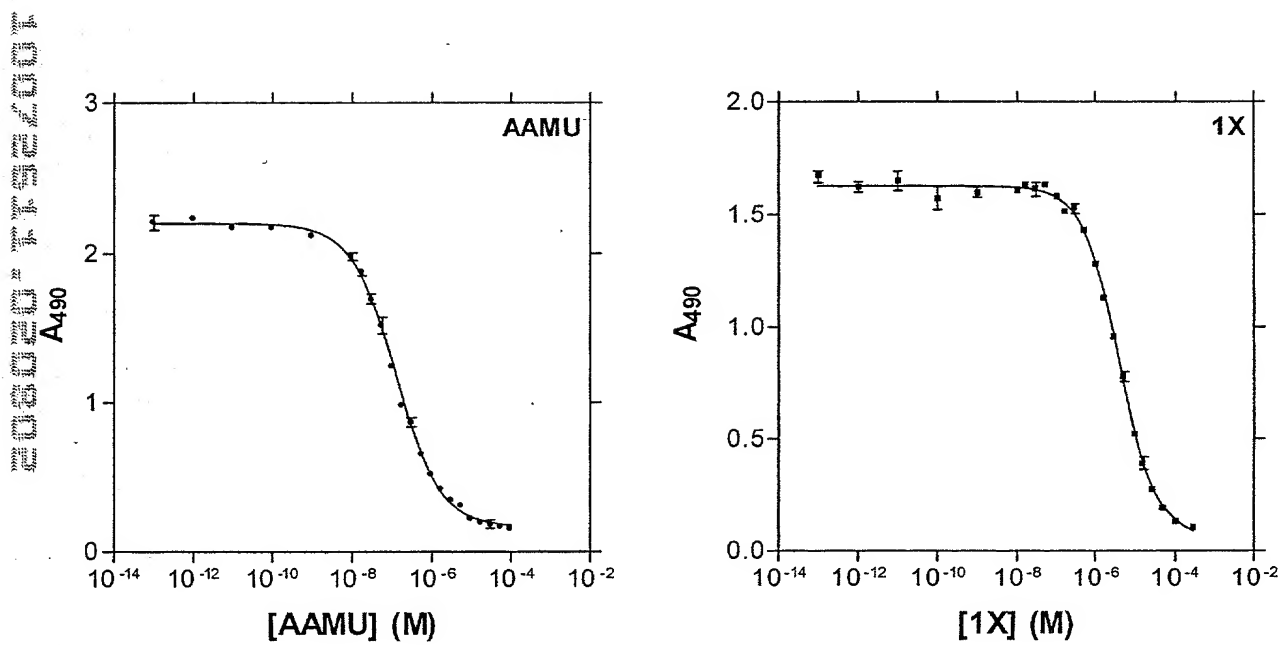


Fig. 18

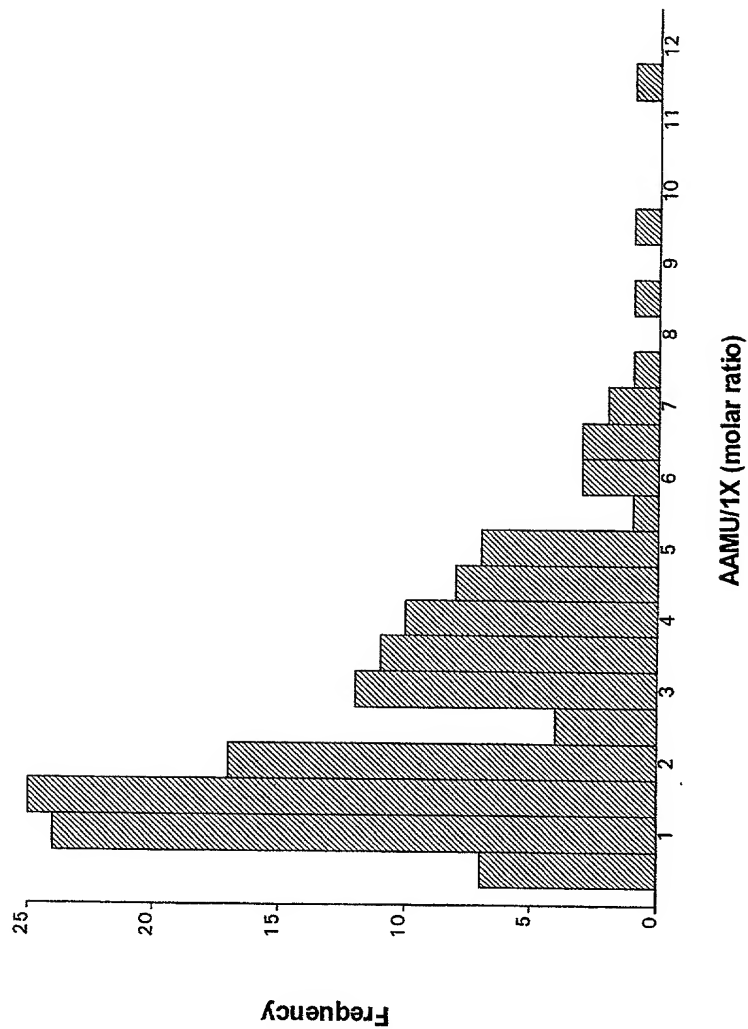


Fig. 19

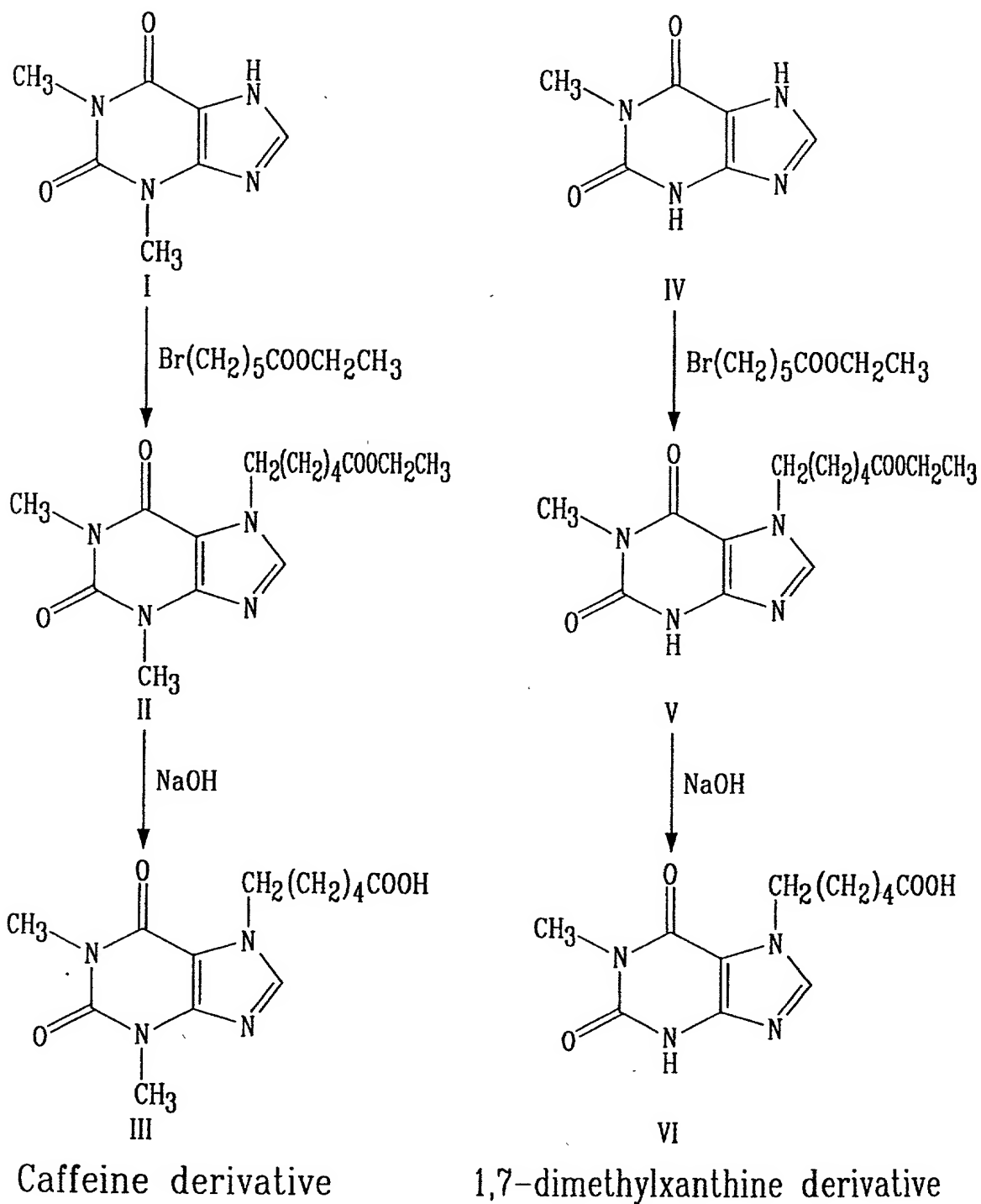
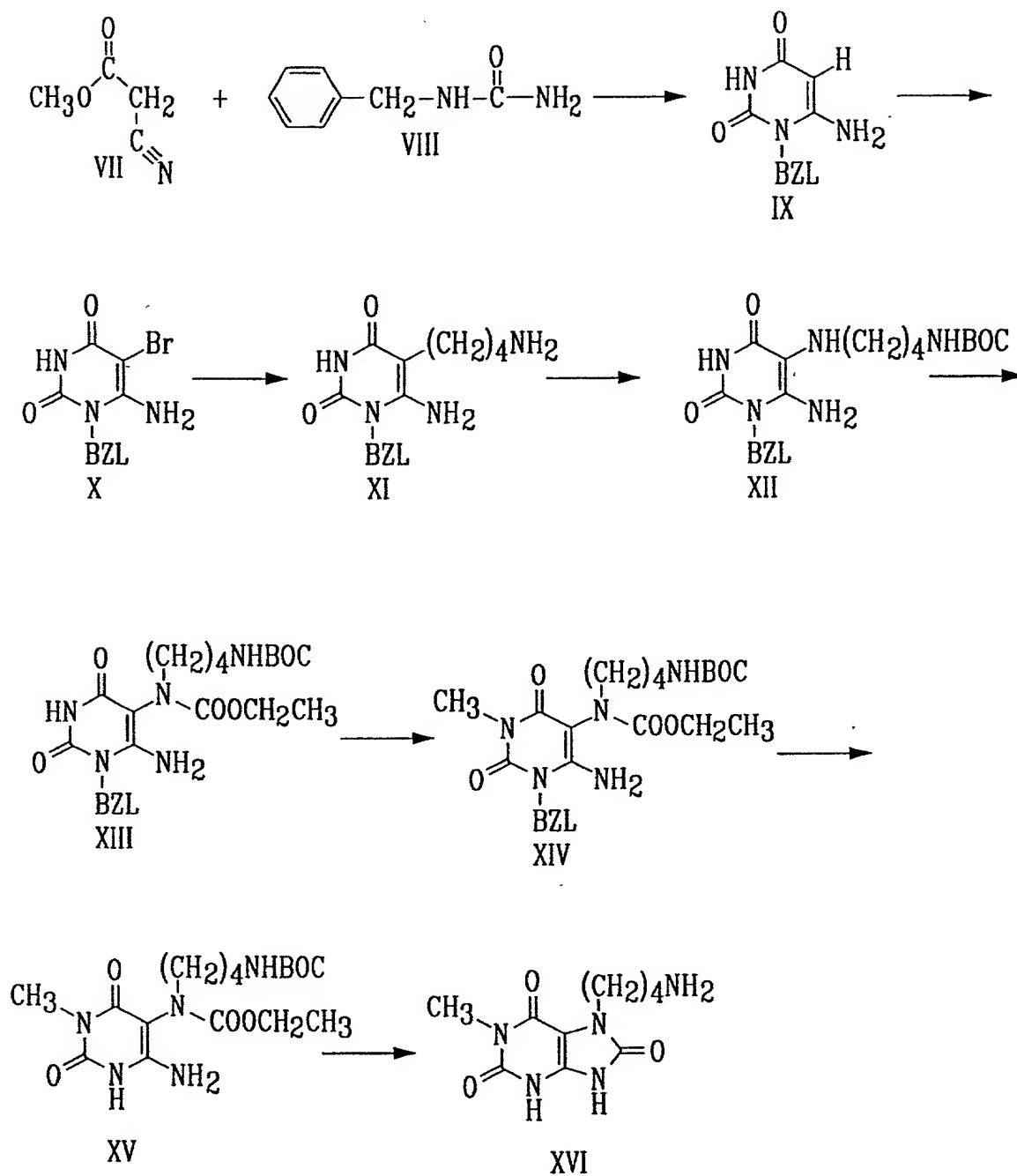


Fig. 20



1,7-dimethyluric acid derivative

Fig. 21

	1	2	3	4	5	6	7	8	9	10	11	12
A	Blk	STD8	STD16	S1	S9	S5	S1	S9	S5	Blk	STD8	STD16
B	STD1	STD9	STD17	S2	S10	S6	S2	S10	S6	STD1	STD9	STD17
C	STD2	STD10	STD18	S3	S11	S7	S3	S11	S7	STD2	STD10	STD18
D	STD3	STD11	STD19	S4	S12	S8	S4	S12	S8	STD3	STD11	STD19
E	STD4	STD12	STD20	S5	S1	S9	S5	S1	S9	STD4	STD12	STD20
F	STD5	STD13	STD21	S6	S2	S10	S6	S2	S10	STD5	STD13	STD21
G	STD6	STD14	STD22	S7	S3	S11	S7	S3	S11	STD6	STD14	STD22
H	STD7	STD15	STD23	S8	S4	S12	S8	S4	S12	STD7	STD15	STD23

Fig. 22

96-WELL MICROARRAY PLATE

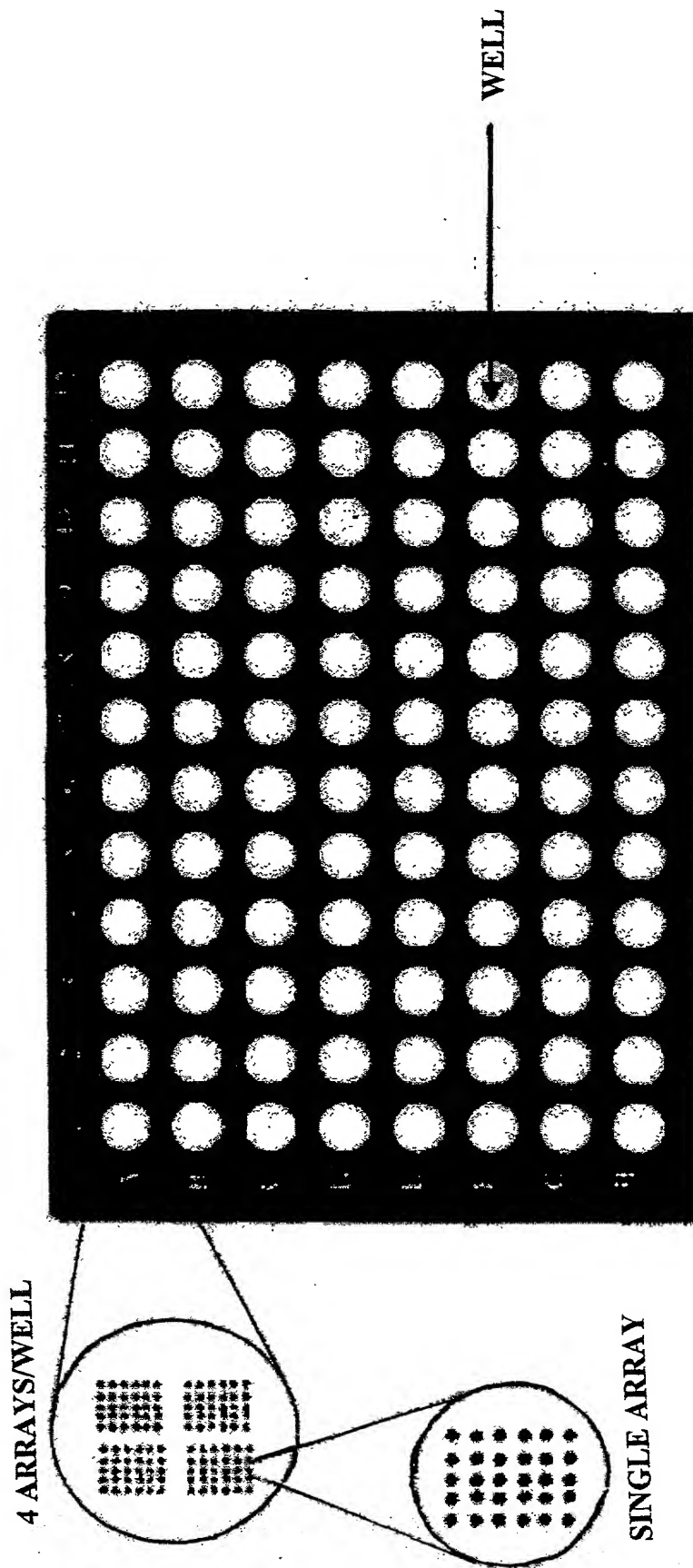
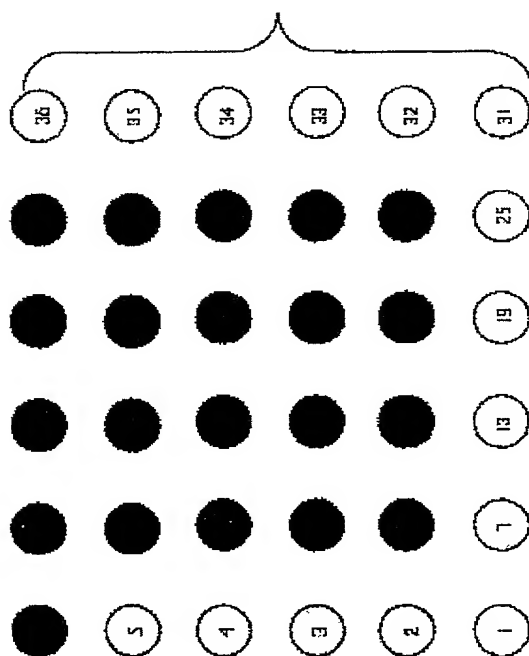
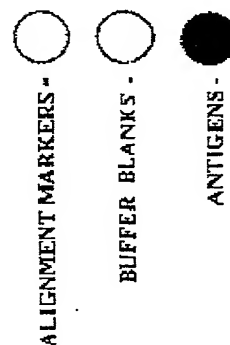


Fig. 23

6 x 6 ARRAY



ARRAY LAYOUT:



ANTIGEN KEY:

1. BIOTINYLATED BSA MARKER
- 2-6. BUFFER BLANKS
7. NAT2: AAMU
8. BIOTINYLATED BSA MARKER
9. NAT2: 1X
10. NAT1: pASA
11. NAT1: ACETYL-pASA
12. CYP1A2: CAFFEINE
13. BIOTINYLATED BSA MARKER
14. CYP1A2: 1,7-DMX
15. CYP1A2: 1,7-DMU
16. CYP2A6: COMARIN
17. CYP2A6: 7-HYDROXYCOUMARIN
18. CYP2C19: R-(-)-MEPHENYTOIN
19. BIOTINYLATED BSA MARKER
20. CYP2C19: S-(+)-MEPHENYTOIN
21. CYP2C9: DICLOFENAC
22. CYP2C9: 4-HYDROXYDICLOFENAC
23. CYP2D6: DEXTROMETHORPHAN
24. CYP2D6: DEXTROPHAN
25. BIOTINYLATED BSA MARKER
26. CYP2E1: CHLORZOXAZONE
27. CYP2E1: 6-HYDROXYCHLORZOXAZONE
28. CYP3A4: MIDAZOLAM
29. CYP3A4: 1-HYDROXYMIDAZOLAM
30. BUFFER BLANK
- 31-36. BIOTINYLATED BSA MARKER

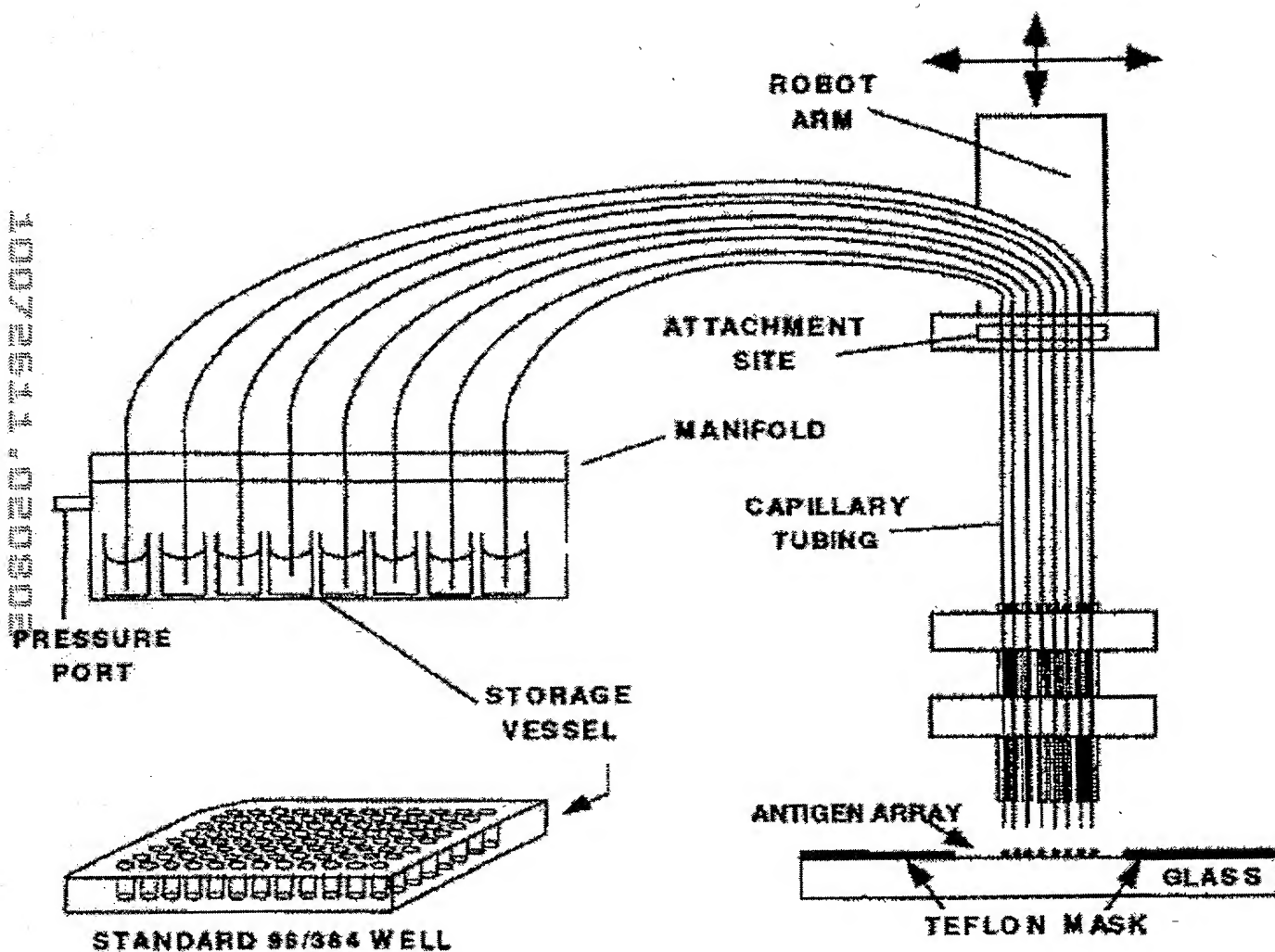


Fig. 25

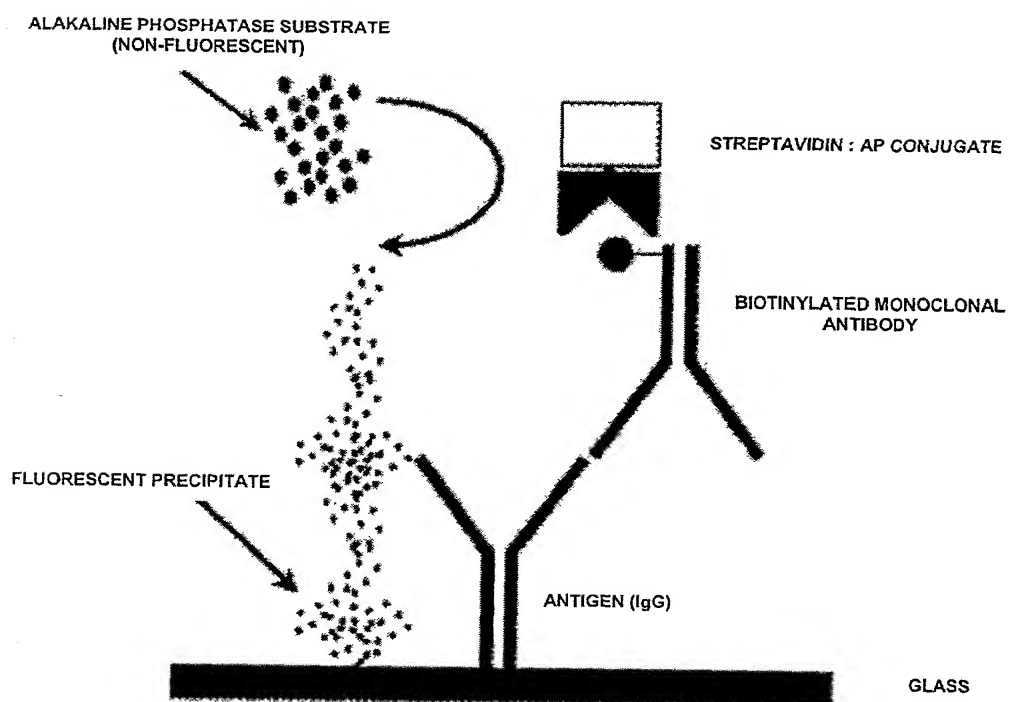


Fig. 26

Rapid Immunassay (Dipstick)

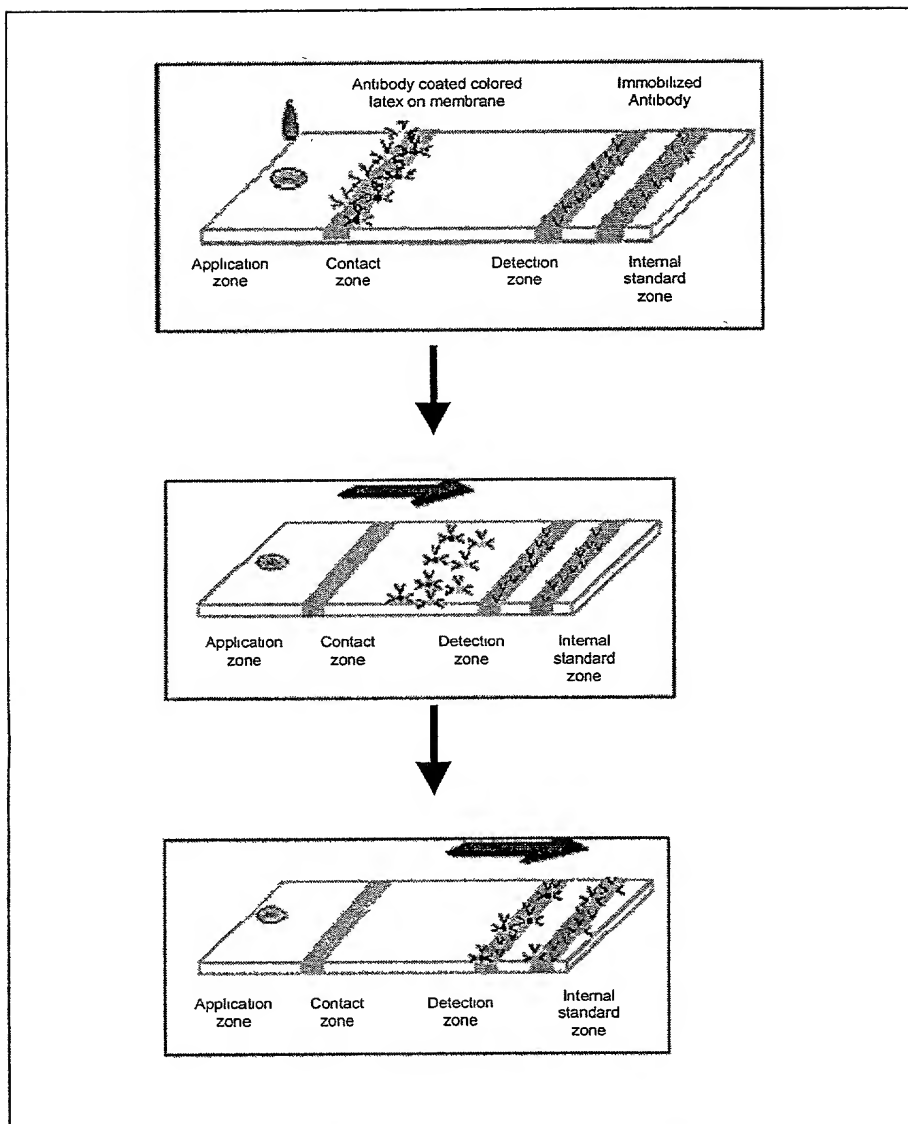


Fig. 27

PCR-ELISA

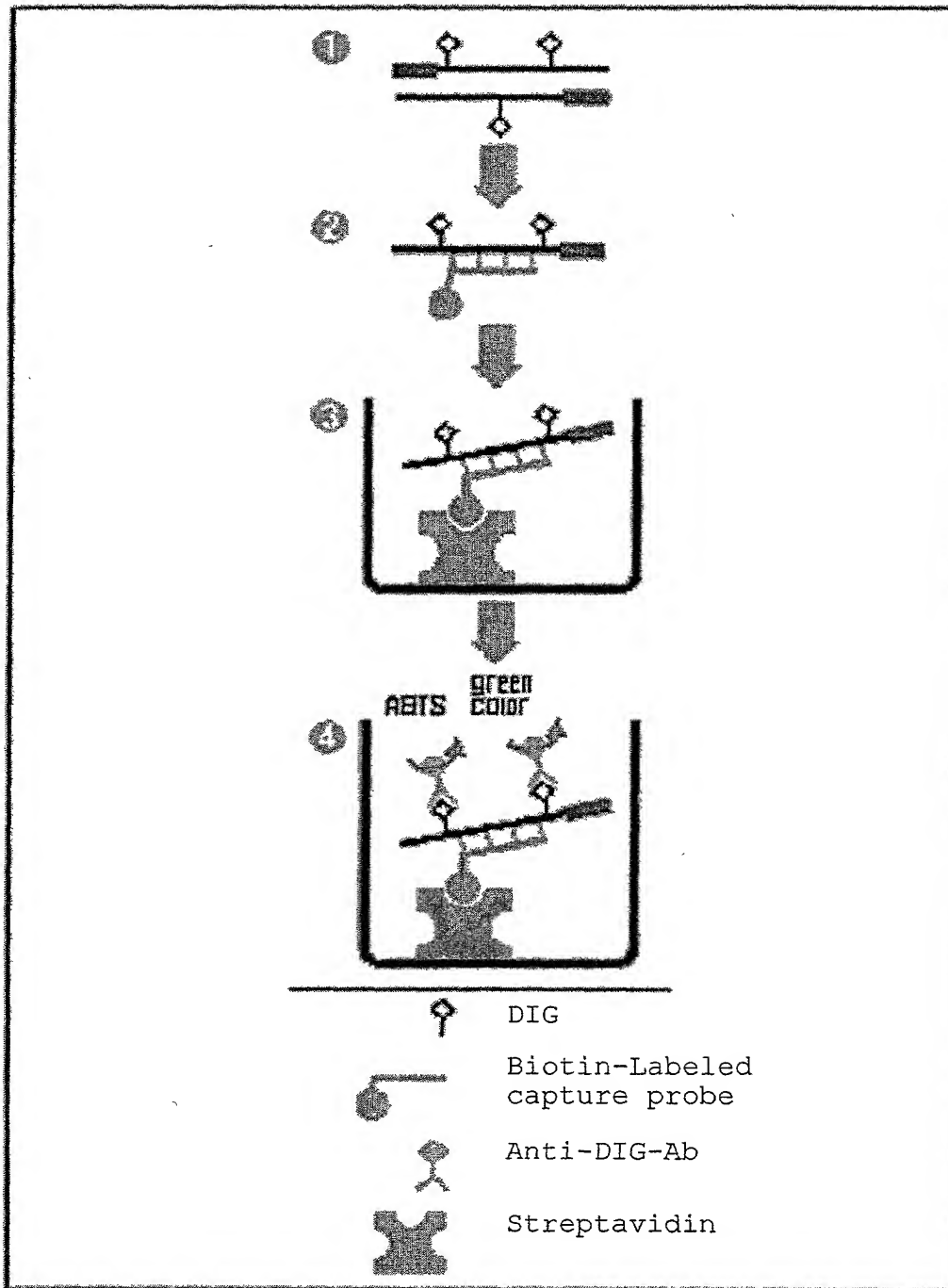


Fig. 28

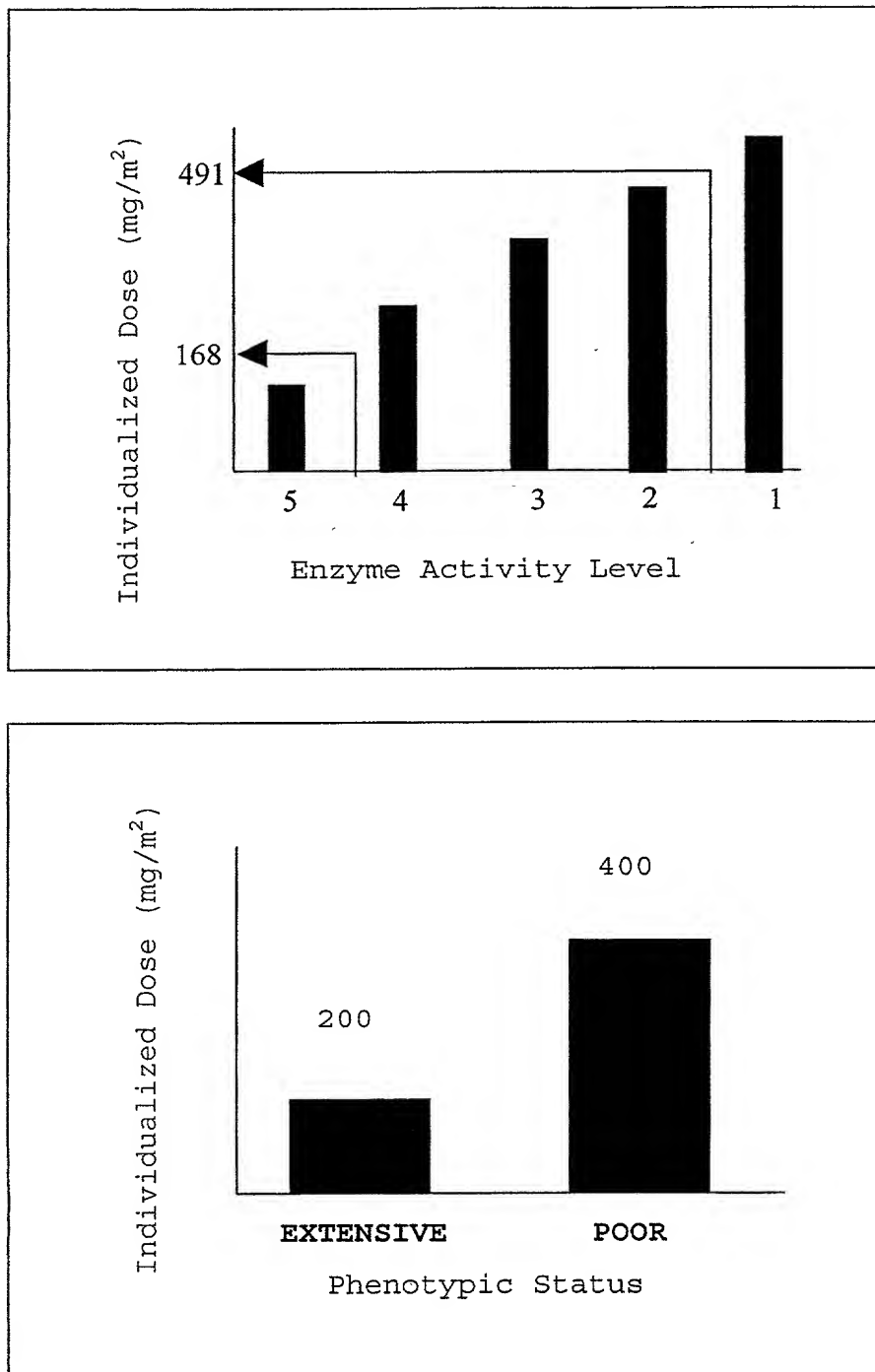


Fig. 29